

Appl. No. 10/606,108
Reply to Office Action of August 8, 2006
Amdt. Dated 2/8/2007

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A magnetic head assembly for a helical scan drive comprising:

a magnetic recording head, having a leading side and a trailing side relative to the traveling direction of a magnetic recording medium and fabricated in a thin film forming process, and at least one auxiliary member adhered to either said leading side or said trailing side of said magnetic recording head, said magnetic recording head mounted in a helical scan drive and including;

a substrate,

a first magnetic core formed above said substrate and having a front end portion,

a second magnetic core formed above said substrate and having a front end portion and a back end portion, said back end portion being connected to said first magnetic core,

a magnetic gap of predetermined thickness provided between said front end portion of said first magnetic core and said front end portion of said second magnetic core,

a coil having a portion disposed between said first magnetic core and said second magnetic core for developing a magnetic flux between the front end portions of said first and second magnetic cores,

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wherein a width of said second magnetic core at the front end portion thereof is ~~equal to or~~ smaller than a width of said first magnetic core, and

wherein said second magnetic core is positioned on said leading side of said magnetic recording head.

Claim 2. (Cancelled)

3. (Original) The magnetic head assembly as claimed in claim 1, wherein a saturation magnetic flux density of a material of said first magnetic core is chosen to be larger than that of said second magnetic core.

Claim 4. (Cancelled)

5. (Original) The magnetic head assembly as claimed in claim 1, wherein said first magnetic core is made of two or more kinds of stacked films and a saturation magnetic flux density of a material of at least one film of the stacked films closest to said magnetic gap is chosen to be larger than that of said second magnetic core.

Claim 6. (Cancelled)

7. (Currently Amended) A magnetic tape drive unit for a helical scan drive comprising a magnetic head assembly for recording signals on a tape shaped recording

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medium and tape driving means for making the tape shaped recording medium to travel along a predetermined traveling path, wherein:

said magnetic head assembly comprises;

a magnetic recording head positioned on a rotary head drum and having a leading side and a trailing side relative to the traveling direction of said tape shaped recording medium and fabricated by a thin film forming process, and at least one auxiliary member adhered to either said leading side or said trailing side of said magnetic recording head, said magnetic recording head including; a substrate, a first magnetic core formed above said substrate and having a front end portion, a second magnetic core formed above said substrate having a front end portion and a back end portion, said back end portion being connected to said first magnetic core, a magnetic gap of predetermined thickness provided between said front end portion of said first magnetic core and said front end portion of said second magnetic core, a coil having a portion disposed between said first magnetic core and said second magnetic core for developing a magnetic flux between end portions of said first and second magnetic cores;

wherein a width of said second magnetic core at the front end portion is ~~equal to~~ ~~or~~ smaller than a width of said first magnetic core; and

wherein said second magnetic core is positioned at a leading side of said magnetic recording head and wherein an auxiliary member is adhered to the magnetic recording head at the leading side and/or a trailing side in the traveling direction on the magnetic recording medium.

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Claim 8. (Cancelled)

9. (Original) The magnetic tape drive unit as claimed in claim 7, wherein a saturation magnetic flux density of a material of said first magnetic core is chosen to be larger than that of said second magnetic core.

Claim 10. (Cancelled)

11. (Original) The magnetic tape drive unit as claimed in claim 7, wherein said first magnetic core comprises two or more kinds of stacked films and a saturation magnetic flux density of a material of at least one film of the stacked films closest to said magnetic gap is chosen to be larger than that of said second magnetic core.

Claims 12.-18. (Cancelled)

19. (Previously Presented) The magnetic head assembly as claimed in claim 1, wherein a first auxiliary member is adhered to said leading side of said magnetic recording head and a second auxiliary member is adhered to said trailing side of said magnetic recording head.

20. (Previously Presented) The magnetic head assembly as claimed in claim 7, wherein a first auxiliary member is adhered to said leading side of said

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magnetic recording head and a second auxiliary member is adhered to said trailing side of said magnetic recording head.

Please add the following new claim:

21. (New) A magnetic head assembly for a helical scan drive comprising:

a magnetic recording head, having a leading side and a trailing side relative to the traveling direction of a magnetic recording medium and fabricated in a thin film forming process, at least one auxiliary member adhered to either said leading side or said trailing side of said magnetic recording head, said magnetic recording head mounted in a helical scan drive and including;

a substrate,

a first magnetic core formed above said substrate and having a front end portion,

a second magnetic core formed above said substrate and having a front end portion and a back end portion, said back end portion being connected to said first magnetic core,

a magnetic gap of predetermined thickness provided between said front end portion of said first magnetic core and said front end portion of said second magnetic core,

a coil having a portion disposed between said first magnetic core and said second magnetic core for developing a magnetic flux between the front end portions of said first and second magnetic cores,

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wherein a width of said second magnetic core at the front end portion thereof is equal to or smaller than a width of said first magnetic core; and wherein the first magnetic core and the second magnetic core each has a narrow region located nearest to the recording medium and a widening portion wherein the width of the cores each increases, the first magnetic core and the second magnetic core each has a widened portion that is substantially wider than the region located nearest the recording medium and which is adjacent the widening portions and the coil portion is located between the first and second magnetic cores only at the widened portions of the first and second magnetic cores, the widened portions having a generally constant width at the location of the coil portion.